10/564220 IAP20 Rec'd PCT/PTO 11 JAN 2006

Attorney Docket No. 36856.1405

DESCRIPTION

PIEZOELECTRIC DEVICE

BACKGROUND OF THE INVENTION

1. Technical Field of the Invention

______The present invention relates to piezoelectric devices, and in particular relates to a piezoelectric device having piezoelectric elements using a piezoelectric substrate and a piezoelectric thin film, such as a resonatorresonators and a filter.

Description of the RelatedBackground Art

[0002] ——Recently, a chip-size package (CSP) has been developed in which that a piezoelectric device, such as a surface—acoustic—wave filter (SAW filter) including using—a piezoelectric substrate and a bulk-acoustic—wave filter (BAW filter) includingusing a piezoelectric thin film, is miniaturized tountil an element chip size.

For example, a piezoelectric device 2 shown in Fig. 5 includes a piezoelectric substrate 3 having piezoelectric elements including IDTs (interdigital transducers, tinterdigital electrodes) 4a and an electrically conductive pattern, such as pads 4b, provided formed on one principal surface 3a of the piezoelectric substrate 3, to a cover 6 covering the one principal surface 3a with a support layer 5 therebetween, to and external electrodes 7, which are exposed

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International Application No.: PCT/JP2005/011169 U.S. Patent Application No.: Unknown January 11, 2006

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AMENDMENTS TO THE SPECIFICATION:

A substitute specification and a marked-up copy of the English translation of the originally filed PCT application are attached hereto.

Please replace the Title of the Invention with the following <u>new</u> Title of the Invention:

PIEZOELECTRIC DEVICE

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BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001] The present invention relates to piezoelectric devices, and in particular relates to a piezoelectric device having piezoelectric elements using a piezoelectric substrate and a piezoelectric thin film, such as a resonator and a filter.

2. Description of the Related Art

[0002] Recently, a chip-size package (CSP) has been developed in which a piezoelectric device, such as a surface acoustic wave filter (SAW filter) including a piezoelectric substrate and a bulk-acoustic-wave filter (BAW filter) including a piezoelectric thin film, is miniaturized to an element chip size.

[0003] For example, a piezoelectric device 2 shown in Fig. 5 includes a piezoelectric substrate 3 having piezoelectric elements including IDTs (interdigital transducers, interdigital electrodes) 4a and an electrically conductive pattern, such as pads 4b, provided on one principal surface 3a of the piezoelectric substrate 3, a cover 6 covering the one principal surface 3a with a support layer 5 therebetween, and external electrodes 7 which are exposed outside the cover 6. The piezoelectric device 2 is mounted in a face down

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